

TEST REPORT
ON
CHIP FORMAT PRINTER

STATINTL

Prepared by:

Quality & Reliability Dept.

Approved by:

STATINTL

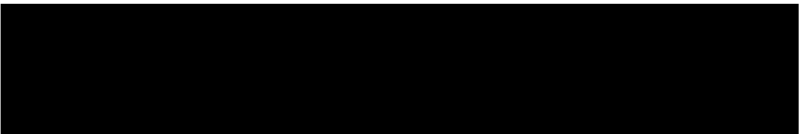




TABLE OF CONTENTS

	<u>TITLE</u>	<u>PAGES</u>
1.	<u>NOTICE</u>	1
2.	<u>ADMINISTRATIVE DATA</u>	2
3.	<u>SCOPE</u>	3
4.	<u>GENERAL INFORMATION</u>	4
A.	<u>Electrical-Mechanical Visual Inspection</u>	5 - 6
B.	<u>Performance</u>	7 - 8
C.	<u>Positional Accuracy</u>	9 - 10
D.	<u>Automatic Chip Counter and Character Generator</u>	11 - 12
E.	<u>Parity Error</u>	13 - 14
F.	<u>Automatic Exposure Control</u>	15 - 17
G.	<u>Resolution</u>	18 - 19
H.	<u>Final Photographic Check</u>	20 - 21
5.	<u>SUMMARY OF TEST RESULTS</u>	22
6.	<u>TEST DEVIATIONS ACCEPTANCE AND APPROVAL</u>	23 - 24
7.	<u>CONCLUSION</u>	25

NOTICE

When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation of conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

ADMINISTRATIVE DATA

<u>Purpose of Test</u>	-	Acceptance	STATINTL
<u>Manufacturer</u>	-		
<u>Manufacturer's Part Number</u>	-		
<u>Manufacturer's Serial Number</u>	-	001	
<u>Number of Specimens Tested</u>	-	One (1)	
<u>Applicable Specifications and Documents</u>	-	Specification of a Chip Format Printer 1 May 1967, Specification No. TS 1445-70. Amendment I - Specification of a Chip Format Printer, 22 January 1968, Spec. No. TS 1445-70. Amendment II - Specification of a Chip Format Printer, 8 March 1968, Spec. No. TS 1445-70. STATINTL  Drawing No. 1137A1, CFP Assembly  Drawing No. 1137SD-1 thru SD-13 CFP Schematic. STATINTL  Specification Control Drawing No. 1137 INST. 1	
<u>Security Classification</u>	-	Unclassified	
<u>Date Test Started</u>	-	March 19, 1968	
<u>Date Test Completed</u>	-	March 19, 1968	
 <u>Job Number</u>	-	1445-045	

SCOPE

This report covers the results of subjecting the Chip Format Printer to the Acceptance Test as outlined in the Test Specification and Procedure.

All data pertinent to these tests are covered in this report.

The following tests are covered in this report:

- A. Electrical-Mechanical Visual Inspection
- B. Performance
- C. Positional Accuracy
- D. Automatic Chip Counter and Character Generator
- E. Parity Error
- F. Automatic Exposure Control
- G. Resolution
- H. Final Photographic Check

GENERAL INFORMATION

A. CALIBRATION

All test equipment was verified for proper calibration prior to use and no equipment was used if expiration date was reached.

B. VOLUME

The volume of the test facilities was such that the bulk of the equipment under test did not interfere with the generation and maintenance of test conditions.

C. STANDARD CONDITIONS

Unless otherwise stated, these tests were accomplished under standard conditions. Standard conditions are defined as:

- 1) Temperature - Room Ambient (70°F, $\pm 3^\circ\text{F}$)
- 2) Altitude - Normal Ground
- 3) Vibration - None
- 4) Humidity - Room Ambient, up to 85% Relative Humidity

A. ELECTRICAL-MECHANICAL VISUAL INSPECTION

In accordance with Specification No. TS 1445-70.

RECORD DATA SHEET No. 1

ELECTRICAL MECHANICAL VISUAL INSPECTION

Applicable
r. of Spec.

5.1.1

1. Dimensional check/per installation
Dwg. 1137-Inst-1

5.1.3

2. Name Plates

5.1.5

3. Electrical Inspection

5.1.5

4. Mechanical Inspection

Accepted Date
and Initiated

STATINTL

3/28/8

3/28/8

3/28/8

3/28/8

B. PERFORMANCE

In accordance with Specification No. TS 1445-70.

Approved For Release 2001/03/06 : CIA-RDP78B04747A000400030044-7

STATINTL

RECORD DATA SHEET No. 2PERFORMANCE SPECIFICATIONApplicable
Par. of Spec.Procedure
Check

STATINTL

- | | | |
|---------|----------------------------------|-------------------------------------|
| 5.2.1 | 1. Initial Set-Up | <input checked="" type="checkbox"/> |
| 5.2.2 | 2. Main Power and Indicator Test | <input checked="" type="checkbox"/> |
| 5.2.3 | 3. Malfunction Check | |
| 5.2.3.1 | a) Chip Cass Empty | <input checked="" type="checkbox"/> |
| 5.2.3.2 | b) Data Mast Empty | <input checked="" type="checkbox"/> |
| 5.2.3.3 | c) Air Indicator | <input checked="" type="checkbox"/> |
| 5.2.3.4 | d) Liquid Indicator | <input checked="" type="checkbox"/> |
| 5.2.3.5 | e) Vacuum Indicator | <input checked="" type="checkbox"/> |
| 5.2.3.6 | f) Magazine Position & Mask Size | <input checked="" type="checkbox"/> |
| 5.2.4 | 4. Manual Controls | |
| 5.2.4.1 | a) Azimuth Slew | <input checked="" type="checkbox"/> |
| 5.2.4.2 | b) Azimuth Position | <input checked="" type="checkbox"/> |
| 5.2.4.3 | c) Y Operation | <input checked="" type="checkbox"/> |
| 5.2.4.4 | d) X Operation (Upper) | <input checked="" type="checkbox"/> |
| 5.2.4.5 | e) X Operation (Lower) | <input checked="" type="checkbox"/> |
| 5.2.4.6 | f) Film Footage Counter (Upper) | <u>15.0'</u> <u>49.8'</u> |
| | g) Film Footage Counter (Lower) | <u>15.0'</u> <u>50.0'</u> |

STATINTL

C. POSITIONAL ACCURACY

In accordance with Specification No. TS 1445-70.

STATINTL Approved For Release 2001/03/06 : CIA-RDP78B04747A000400030044-7

RECORD DATA SHEET NO. 3

POSITIONAL ACCURACY TESTS

Applicable
Par. of Spec.

5.3.1 1. Positional accuracy test

STATINTL

θ error E_r

5.3.1.1 Lower Channel

.234° .643 m/m

5.3.1.2 Upper Channel

.043° .596 m/m

5.3.2 2. Mensuration Counters

STATINTL X error

Y error

θ error

5.3.2.1 Lower Channel

0 .2 .1

5.3.2.2 Upper Channel

.1 .2 .3

STATINTL

D. AUTOMATIC CHIP COUNTER AND CHARACTER GENERATOR

In accordance with Specification No. TS 1445-70.

STATINTL

Approved For Release 2001/03/06 : CIA-RDP78B04747A000400030044-7

RECORD DATA SHEET NO. 4AUTOMATIC CHIP COUNTER AND CHARACTER GENERATOR

Applicable
Par. of Spec..

5.3.3

1. Automatic Chip Counter and Character Generator

a) Prints Required Counter

Read 18

Actual Chips Printed

Counter 18

b) Alpha numerics complete

and legible.

Check ✓

c) Digital displays complete

and legible.

Check ✓

Each bit shall have its

edge sharp and clear with

contour varying not more

than .010" max. from mean

edge.

Check ✓

d) Digital displays in a straight

line array both vertically

and horizontally.

Check ✓

STATINTL

E. PARITY ERROR

In accordance with Specification No. TS 1445-70.

STATINTL

Approved For Release 2001/03/06 : CIA-RDP78B04747A000400030044-7

RECORD DATA SHEET NO. 5PARITY ERRORApplicable
Para. of Spec.

5.3.4

1. Parity Error:

- a) Vertical parity error
- b) Tape Reader Stops
- c) Horizontal parity error
- d) Does Tape Reader STOP

Check ☒Check ☒Check ☒Check ☒

STATINTL

STATINTL

F. AUTOMATIC EXPOSURE CONTROL

In accordance with Specification No. TS 1445-70.

STATINTL

Approved For Release 2001/03/06 : CIA-RDP78B04747A000400030044-7

RECORD DATA SHEET NO. 6AUTOMATIC EXPOSURE CONTROLApplicable
Para. of Spec.

5.3.5.1

1. Automatic Exposure Control
normal view

Output Density

Input (a) .3 density

1.	<u>.82 - .88</u>
2.	<u>— (NO CHIP) 4/</u>

Input (b) .9 density

1.	<u>.64 - .72</u>
2.	<u>.62 - .68</u>

Input (c) 1.5 density

1.	<u>.57 - .62</u>
2.	<u>.60 - .66</u>

Output density shall be ND 0.7
± 0.2 excluding development
tolerance.

5.3.5.2

2. Auxiliary Exposure Control

Input (a) .3 density

1.	<u>.78 - .86</u>
2.	<u>.78 - .88</u>

Input (b) .9 density

1.	<u>.56 - .68</u>
2.	<u>.58 - .66</u>

Input (c) 1.5 density

1.	<u>.65 - .70</u>
2.	<u>.60 - .78</u>

Same tolerance as above....

STATINTL

STATINTL Approved For Release 2001/03/06 : CIA-RDP78B04747A000400030044-7

RECORD DATA SHEET NO. 6 (cont'd)

Applicable
Para. of Spec.

Output Density

3. Exposure Select Buttons

Input .9 density	+ 3	FCI 313	<u>SUPERIMPOSED ON +2</u>
	+ 2	FCI 313	<u>✓</u>
	+ 1	FCI 313	<u>✓</u>
	Normal		
	- 1	FCI 313	<u>✓</u>
	- 2	FCI 313	<u>✓</u>
	- 3	FCI 313	<u>✓</u>

5.3.5.4 Evenness of Illumination (Tol. = $\pm 20\%$)

1. Average Output Chip Density

Max. Density

Min. Density

Illumination Variation

2. Average Output Chip Densities

Max. Density

Min. Density

Illumination Variation

.75
.78
.72
.06
.81
.83
.79
.04

STATINTL

STATINTL

G. RESOLUTION

In accordance with Specification No. TS 1445-70.

STATINTL

RECORD DATA SHEET NO. 7RESOLUTIONApplicable
Para. of Spec.

5.3.6

ResolutionTarget

Upper Right

Lower Right

Center

Upper Left

Lower Left

Average X Axis/Y Axis

Average X and Y Axis

ResolutionX Axis/Y Axis287 / 323362 / 362228 / 323323 / 362203 / 323281 / 339310

STATINTL

5.3.7

Security Class

Security Messages

Present and Legible

Check ☒

STATINTL

H. FINAL PHOTOGRAPHIC CHECK

In accordance with Specification No. TS 1445-70

STATINTL

RECORD DATA SHEET NO. 8

FINAL PHOTOGRAPHIC CHECK

1. Accuracy of point printed.

<u>Tape Input Valves</u>			<u>Mensuration Readout</u>			<u>Checked Dim.</u>			<u>Error</u>	
X	Y	Ø	X	Y	Ø	X	Y	Ø	Y	Ø
132.8	136.2	37.9°	132.8	136.0	38.0°	.011	.461	.856°	.261	.656°
24.4	18.3	61.1°	24.4	18.2	61.2°	.219	.059	.005°		

2. Security Classification.

STATINTL

Input No. 10

Output No. 10

STATINTL

Print Quality

Good ☒ Fair ☐ Poor ☐

STATINTL

3. Digital Data.

Readin *FULL LINE* Readout *FULL LINE*

STATINTL

Quality Comments *FAIR*

4. Alpha-Numerical

Readin *FULL LINE* Readout *FULL LINE*

STATINTL

Quality Comments *FAIR*

5. Exposure Considerations:

As this test is somewhat subjective, the following points shall be considered:

- (a) Are densities reproduced within the limitations of the output film? OK
- (b) Are the details in the shadows lost? OK
- (c) Are the details in the highlights blocked up? OK
- (d) Check film for scratches, etc. OK

6. Number of prints per minute 10

STATINTL

SUMMARY OF TEST RESULTS

- A. The Chip Format Printer failed to meet the requirements of Paragraphs: 5.3.1.1, 5.3.1.2, 5.3.5.3 and 5.3.8.
- 1) Reference Paragraph 5.3.1.1. The azimuth error recorded was 0.034 degrees in excess of specification limits; the Er error was 0.283 mm in excess of specification limits.
 - 2) Reference Paragraph 5.3.1.2. The Er error was 0.236 mm in excess of specification limits.
 - 3) Reference Paragraph 5.3.5.3. The density in the vicinity of the shoulders of the curves representing the +2 and +3 ND filters are superimposed.
 - 4) Reference Paragraph 5.3.8. In one of two test points evaluated the "Y" and azimuth measurements exceeded the specification limits by 0.261 mm and 0.656 degrees, respectively.
- B. The unit's chip ejection transport mechanism malfunctioned during three phases of the functional testing.

[REDACTED]

STATINTL

STATINTL

To:

cc:

[REDACTED]

STATINTL

[REDACTED]
Contracts

Subject: Project "105"
Acceptance Test Deviations to
TS 1445-70 and Amendments
No. I and II

STATINTL

From: [REDACTED] 2 April 1968

The above subject Acceptance Test Deviations to TS 1445-70 and Amendments No. I and II have been unconditionally accepted and approved by the customer.

STATINTL

[REDACTED]

SJO/cc

21 March 1968

ACCEPTANCE TEST DEVIATIONS

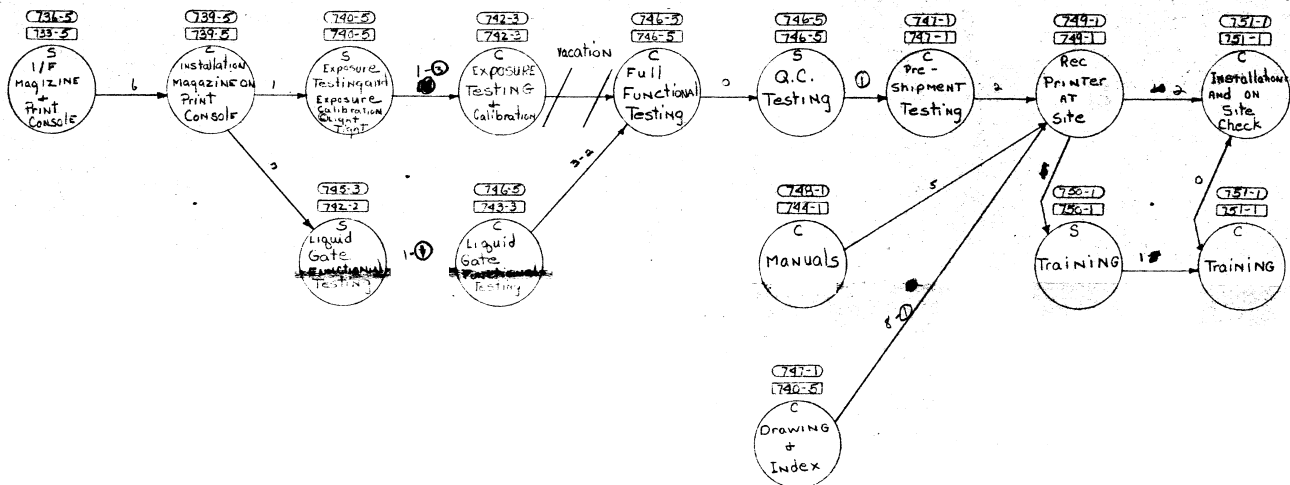
TS 1445-70 and Amendments I & II

- 1) Reference paragraphs 5.3.1.1. The azimuth error recorded was 0.034 degrees in excess of specification limits; the E_r error was 0.283 mm. in excess of specification limits.
- 2) Reference paragraph 5.3.1.2. The E_r error was 0.236 mm in excess of specification limits.
- 3) Reference paragraphs 5.3.5.3. The density in the vicinity of the shoulders of the curves representing the +2 and +3 ND filters are superimposed.
- 4) Reference paragraph 5.3.8. In one of two test prints evaluated, the "Y" and azimuth measurements exceeded the specification limits by 0.261 mm and 0.656 degrees respectively.
- 5) The excessive errors described in paragraphs 1, 2, and 4 above are due, in part, to film instability and data reduction errors. The above deviations are considered to be acceptable.

STATINTL



997414



CHIP PRINTER
PROJ. 1105
JOB. 1445 5/1/67

734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751
MAY					JUNE					JULY					AUG.		

[illegible]

- INSTRUMENT
- A. NAME OF INSTRUMENT: CHIP FORMAT PRINTER
- B. MANUFACTURER: [REDACTED]
- C. CONTRACT NUMBER: [REDACTED]
- D. DELIVERY DATE: INTERIMTIVE, SIX/66 FINAL
11. PHYSICAL FEATURES
- A. SUB-ASSEMBLY:
1. NUMBER OF SUB-ASSEMBLIES: 80
2. WEIGHT: 40 LBS. 28 "H X 32 "W X 38 "D
3. HEAVIEST SUB-ASSEMBLY: WEIGHT: 40 LBS. 28 "H X 32 "W X 38 "D
- B. ASSEMBLED INSTRUMENT
1. NUMBER OF INSTRUMENT COMPONENTS: 4
2. LARGEST COMPONENT: WEIGHT: 1750 LBS. 48.5 "H X 56 "W X 45.5 "D
3. HEAVIEST COMPONENT: WEIGHT: 1750 LBS. 48.5 "H X 56 "W X 45.5 "D
4. TOTAL FLOOR SPACE OCCUPIED BY THE ASSEMBLY, INCLUDING MANEUVERING ACCESS SPACE, 8' 2" IN. HIGH X 12' 1" IN. WIDE X 2' 9" IN. DEEP.
5. TOTAL WEIGHT: 7000 LBS. 48.5 "H X 56 "W X 45.5 "D
- C. TYPE OF BASE OF MOUNT: POINT 1-POINT SUSPENSION _____ 4-POINT SUSPENSION X
- D. DOES THE INSTRUMENT HAVE BUILT-IN MOBILITY? YES _____ NO X
- E. IS THE INSTRUMENT PARTICULARLY SENSITIVE TO VIBRATION? YES _____ NO X
- F. DOES THE INSTRUMENT GENERATE VIBRATION? YES _____ NO X
12. ARE ANY SPECIAL OR UNUSUAL TOOLS OR FIXTURES NECESSARY OR ADVISABLE FOR THE INSTALLATION OF THE MAINTENANCE OF THIS INSTRUMENT? YES X NO _____
13. PLEASE DETAIL THE TONS LEFT WITH ONE TON CAPACITY FOR TRANSFERING UNITS DURING INSTALLATION.
13. UTILITIES
- A. ELECTRICAL
1. VOLTAGE: 208 VOLTS 115 VOLTS _____ VOLTS DC
2. CURRENT: 20 AMPS/PHASE _____ AMPS
3. FREQUENCY: 60 HZ _____
4. NO. OF PHASES: 1 PH _____
5. NO. OF WIRES _____
6. POWER REQUIRED: 2 WATT/M. _____ WATTS
7. POWER FACTOR: 85 % (L.O.O.M.M.) _____
8. TYPE OF OUTLET: THREE PHASE _____ THREE PHASE, THREE WIRE, THREE LOCK, THREE WIRE _____
9. TYPE OF GROUND: BUILDING CONDUIT _____ DIRECT EARTH GROUND _____
10. DOES THE INSTRUMENT REQUIRE BATTERIES FROM EXTERNAL BATTERY SOURCE? SIGNALS OR TO PREVENT INTERFERENCE WITH OTHER EQUIPMENT? _____
11. TYPE OF BATTERY: _____ NO. OF BATTERIES: _____ POLE: LINE/NO. LINE/NO. BATTERY: _____
12. TYPE OF INTERFERENCE: LINE _____ LINE/NO. LINE/NO. TO SMO. AT 270V/110V/NO. TO 250V
- TOTAL INCLUDING VEHICLE TYPE _____

- [illegible]

IV. REMARKS

A. USE ADDITIONAL SHEETS IF MORE SPACE IS REQUIRED FOR ENVIRONMENTAL CONDITIONS OR UTILITIES NOT MENTIONED ABOVE.

B. SUBMIT THREE TYPED COPIES OF THE COMPLETED FORM TO THE TECHNICAL REPRESENTATIVE.

*** SERIES 1000 (HANSEN MFG. CO.) QUICK CONNECT AIR HOSE COUPLING SHOULD BE WITHIN 10 FT. OF REAR UNIT.

[illegible]

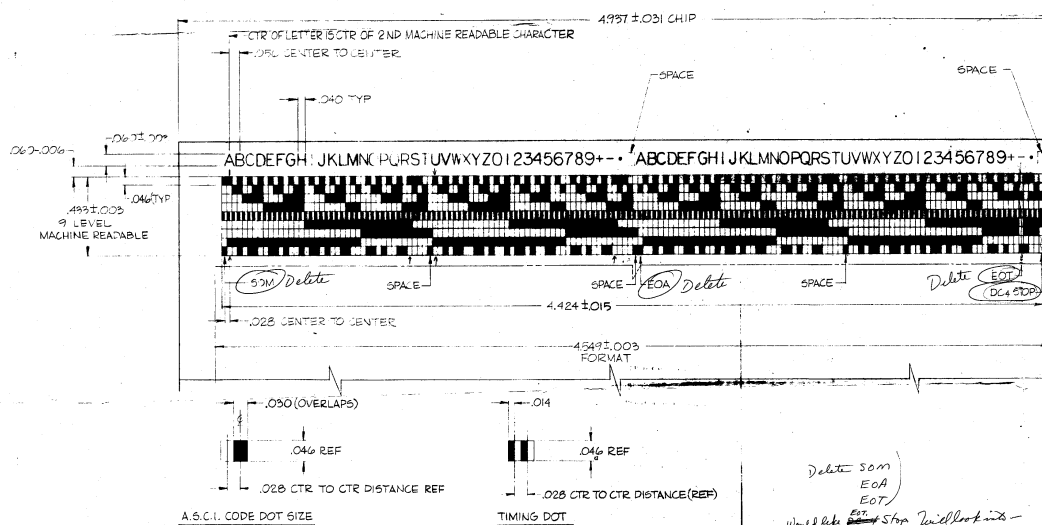
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED

1137INSTL
DRAWING NUMBER
SH 2.

STATINTL

Approved For Release 2001/03/06 : CIA-RDP78B04747A000400030044-7

NOTES:
1. PER THE AMERICAN STANDARD CODE
FOR INFORMATION INTERCHANGE

[illegible]

Delete 50M
EOA
EOT

Would like ^{EOT} ~~EOA~~ Stop Will look into -

Now HO
25 - 0-2
10 - 0-9
4 - 7, 5, 3, black
HO

Will look into ^{EOT} ~~EOA~~, making 41. If same
cost + effort will add DC-4, EOA + 50M.

GENERAL

STATINTL

STATINTL

[illegible]